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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. 09/851,164 | Applicant(s) KONDO, HIROKAZU | |
|---|---|---|---|
| | Examiner James A. Thompson | Art Unit 2625 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *02 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-12,18-44,49 and 52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,18-44,49 and 52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/210,392.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. Applicant's arguments, see pages 14-19, filed 02 May 2007, with respect to the rejections of the claims under 35 USC §102(b) and 35 USC §103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejection are made in view of newly discovered prior art.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-4, 7-10 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bestmann (US Patent 5,481,380) in view of Yeomans (US Patent 4,866,514).**

**Regarding claims 1 and 7:** Bestmann discloses an apparatus (figures 1-5 of Bestmann – *each figure shows a particular aspect or characterization of the apparatus*) for correcting the color of a print medium (figure 2 and column 4, lines 31-41 of Bestmann), comprising: color converting means (figure 2 (14→13) of Bestmann) given to a standard print medium (column 3, lines 11-14 of Bestmann), for converting device-dependent image data (figure 2(14) of Bestmann) to first colorimetric data (figure 2 (13) and column 4, lines 15-20 of Bestmann); color correcting means (figure 2(13→15) of Bestmann) for converting said first colorimetric data to second colorimetric data (figure 2(15) and column 4, lines 14-30 of Bestmann) to correct the difference between the color of a desired print medium (printing proofer) and the color of said standard print medium (scanned document) (column 4, lines 30-41 of Bestmann); and an image output device (figure 1(6) and figure 2(17) of Bestmann) for producing a proof (figure 5(33) of Bestmann) on which the difference between the color of said desired print medium and the color of said standard print medium has been corrected (column 8, lines 56-67 and column 9, line 42 to column 10, line

2 of Bestmann – *correction values are calculated and used to calibrate the values scanned from the test original*), on a proof medium based on said second colorimetric data (column 3, lines 17-19 and lines 31-44 of Bestmann), wherein said color correcting means comprises lookup tables (figure 4(26) of Bestmann) for converting said first colorimetric data to said second colorimetric data (column 5, lines 11-14 of Bestmann), and wherein each of the first (CIEXYZ) and second (CIELAB,CIELUV) colorimetric data each comprise device-independent color spaces (column 4, lines 20-25 of Bestmann).

Bestmann does not disclose expressly that the converting of the first colorimetric data to second colorimetric data includes a direct conversion between the first and second colorimetric data; and that said lookup tables are specifically *one-dimensional* lookup tables.

Yeomans discloses color conversion using a plurality of one-dimensional lookup tables (figure 1 (2) and column 3, lines 4-17 of Yeomans), wherein the converting of a first colorimetric data to a second colorimetric data includes a direct conversion between the first and second colorimetric data (column 3, lines 47-55 of Yeomans).

Bestmann and Yeomans are combinable because they are from the same field of endeavor, namely color conversion processing for digital image data. At the time of the invention, it would have been obvious to one of ordinary skill in the art to perform direct conversion using one-dimensional lookup tables, as taught by Yeomans, rather than interpolating the three least significant bits, as taught by Bestmann. The motivation for doing so would have been to increase the processing speed and reduce the amount of high-speed memory required for the digital color image processing (column 1, lines 15-26 of Yeomans). Therefore, it would have been obvious to combine Yeomans with Bestmann to obtain the invention as specified in claims 1 and 7.

Further regarding claim 1: The method of claim 1 is performed by the apparatus of claim 7.

**Regarding claims 2 and 8:** Bestmann discloses an apparatus (figures 1-5 of Bestmann – *each figure shows a particular aspect or characterization of the apparatus*) for correcting the color of a print medium (figure 2 and column 4, lines 31-41 of Bestmann), comprising: gradation converting means (figure 3(22) of Bestmann) for converting the gradation of device-dependent image data with respect to each color in order to match desired printing conditions (column 4, line 57 to column 5, line 4 of Bestmann); color converting means (figure 2(14→13) of Bestmann) corresponding to standard printing conditions given to a standard print medium (column 3, lines 11-14 of Bestmann), for converting the gradation-converted device-dependent image data (figure 2(14) of Bestmann) to first colorimetric data (figure 2(13) and column 4, lines 15-20 of Bestmann); color correcting means (figure 2(13→15) of Bestmann) for converting said first colorimetric data to second colorimetric data (figure 2(15) and column

4, lines 14-30 of Bestmann) to correct the difference between the color of a desired print medium (printing proofer) and the color of said standard print medium (scanned document) (column 4, lines 30-41 of Bestmann); and an image output device (figure 1(6) and figure 2(17) of Bestmann) for producing a proof (figure 5(33) of Bestmann) on which the difference between the color of said desired print medium and the color of said standard print medium has been corrected (column 8, lines 56-67 and column 9, line 42 to column 10, line 2 of Bestmann – *correction values are calculated and used to calibrate the values scanned from the test original*), on a proof medium based on said second colorimetric data (column 3, lines 17-19 and lines 31-44 of Bestmann), wherein each of the first (CIEXYZ) and second (CIELAB, CIELUV) colorimetric data each comprise device-independent color spaces (column 4, lines 20-25 of Bestmann).

Bestmann does not disclose expressly that the converting of the first colorimetric data to second colorimetric data includes a direct conversion between the first and second colorimetric data.

Yeomans discloses that the converting of a first colorimetric data to a second colorimetric data includes a direct conversion between the first and second colorimetric data (column 3, lines 47-55 of Yeomans).

Bestmann and Yeomans are combinable because they are from the same field of endeavor, namely color conversion processing for digital image data. At the time of the invention, it would have been obvious to one of ordinary skill in the art to perform direct conversion using one-dimensional lookup tables, as taught by Yeomans, rather than interpolating the three least significant bits, as taught by Bestmann. The motivation for doing so would have been to increase the processing speed and reduce the amount of high-speed memory required for the digital color image processing (column 1, lines 15-26 of Yeomans). Therefore, it would have been obvious to combine Yeomans with Bestmann to obtain the invention as specified in claims 2 and 8.

Further regarding claim 2: The method of claim 2 is performed by the apparatus of claim 8.

**Regarding claims 3, 4, 9 and 10:** Bestmann discloses that said color correcting means is generated by outputting color patches (figure 5(33) and column 9, lines 1-12 of Bestmann – *each printed color field corresponds to the recited color patches*), whose colorimetric values are varied in a colorimetric color space about the color of the standard print medium (column 8, lines 56-67 of Bestmann), with said image output device, and comparing the color of the desired print medium with the colors of the color patches on the proof medium (column 9, lines 4-15 of Bestmann).

**Regarding claim 52:** Bestmann discloses outputting a color output based on an output result of the conversion between the first and second colorimetric data (column 4, lines 20-41 of Bestmann).

Bestmann does not disclose expressly that said conversion is a *direct* conversion, and that between the direct conversion and the outputting the color output, there is no inclusion of interpolation of the output result of the direct conversion.

Yeomans discloses performing a direct conversion between first and second colorimetric data (column 3, lines 47-55 of Yeomans); and that between the direct conversion and the outputting the color output, there is no inclusion of interpolation of the output result of the direct conversion (figure 1(1→2→3) of Yeomans – *as can be seen, the LUT processes the color values directly, with no interpolation or other processing in between*).

Bestmann and Yeomans are combinable because they are from the same field of endeavor, namely color conversion processing for digital image data. At the time of the invention, it would have been obvious to one of ordinary skill in the art to perform direct conversion using one-dimensional lookup tables, as taught by Yeomans, rather than interpolating the three least significant bits, as taught by Bestmann. The motivation for doing so would have been to increase the processing speed and reduce the amount of high-speed memory required for the digital color image processing (column 1, lines 15-26 of Yeomans). Therefore, it would have been obvious to combine Yeomans with Bestmann to obtain the invention as specified in claim 52.

**5. Claims 5-6, 11-12, 29-31, 33-35, 37-39 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bestmann (US Patent 5,481,380) in view of Yeomans (US Patent 4,866,514) and Keating (US Patent 5,619,434).**

**Regarding claims 5, 6, 11 and 12:** Bestmann in view of Yeomans does not disclose expressly that said color patches outputted on said proof medium comprise color patches whose colorimetric values L*a*b* are varied in a CIELAB color space about the color of said standard print medium.

Keating discloses that said color patches have colorimetric values L*a*b* which are varied in a CIELAB color space (column 9, lines 13-18 of Keating).

Bestmann in view of Yeomans is combinable with Keating because they are from the same field of endeavor, namely color correction systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to vary the colors of said color patches about the color of said standard print medium, as discussed in the arguments regarding claims 3, 4, 9 and 10, using colorimetric values L*a*b* which are varied in a CIELab color space, as taught by Keating. The motivation for doing so would have been that CIELab values are a useful color space with which to measure color appearance

(column 1, lines 16-25 of Keating). Therefore, it would have been obvious to combine Keating with Bestmann in view of Yeomans to obtain the invention as specified in claims 5, 6, 11 and 12.

**Regarding claims 29, 33, 37 and 41:** Bestmann in view of Yeomans does not disclose expressly that a color of a central color patch is the same as a color of the standard print medium.

Keating discloses varying colors around a central color (column 9, lines 13-18 of Keating), which is to be printed on a cloth print medium (column 8, lines 3-5 of Keating).

Bestmann in view of Yeomans is combinable with Keating because they are from the same field of endeavor, namely color correction systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to vary the color patches printed on the proofing sheet about a central color representative of a central color for a print medium, as taught by Keating. The motivation for doing so would have been to try to match the color of a medium within a particular acceptable color range (column 9, lines 13-17 of Keating). Therefore, it would have been obvious to combine Keating with Bestmann in view of Yeomans to obtain the invention as specified in claims 29, 33, 37 and 41.

**Regarding claims 30, 34, 38 and 42:** Bestmann in view of Yeomans does not disclose expressly that the color patches comprise three-dimensional colorimetric values of L*a*b* and color patches are arranged as a*-b* planes in respective cross sections of different L*-axis values.

Keating discloses using a color space for color comparison that comprise three-dimensional colorimetric values of L*a*b* (figure 6 and column 9, lines 38-44 of Keating). Said colorimetric values are arranged in an ellipsoid (column 9, lines 13-17 of Keating). Along the L*-axis of said ellipsoid are a*-b* plane cross-sections at each different value of L* (figure 6 of Keating). Keating further teaches correction by specifically incrementing the lightness value (column 11, lines 52-66 of Keating) and assigning a set of a*-b* values for each lightness value (column 12, lines 39-44 of Keating).

Bestmann in view of Yeomans is combinable with Keating because they are from the same field of endeavor, namely color correction systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use three-dimensional L*a*b* colorimetric values with a*-b* plane cross sections for different L*-values, as taught by Keating, for arranging the printing of the color patches. The motivation for doing so would have been that printing is performed by printers which print on a medium that is inherently two dimensional, but color variations in all three colorimetric dimensions must be analyzed. Therefore, it would have been obvious to combine Keating with Bestmann in view of Yeomans to obtain the invention as specified in claims 30, 34, 38 and 42.

**Regarding claims 31, 35, 39 and 43:** Bestmann in view of Yeomans does not disclose expressly that each color patch is assigned an integer as a relative position from the central color patch according to

each axis of L*a*b* for showing increment/decrement intervals of a colorimetric value and the color of the desired print medium is compared with the color patches, and wherein when no color patch is the same as the color of the desired print medium, a value between two closest color patches which is close to the color of the desired print medium is described as a real number to describe a colorimetric value of the desired print medium.

Keating discloses varying color values in a three-dimensional L*a*b* color space (column 9, lines 38-44 of Keating) defined by an ellipsoid (figure 6 and column 9, lines 13-17 of Keating). The central value of said ellipsoid is the desired value for the color correction process (column 9, lines 13-21 of Keating). Keating further teaches correction by specifically incrementing the L*-value (column 11, lines 52-66 of Keating), with a*-b* plane cross sections at each L*-value (figure 6 of Keating), and assigning a set of a*-b* values for each L*-value (column 12, lines 39-44 of Keating). Each L*-value with an assigned a*-b* plane cross section is assigned a specific integer (figure 9 and column 11, lines 35-40 of Keating) according to the relative position from the central L*-value for showing increment/decrement intervals of the corresponding colorimetric value (column 11, lines 25-34 of Keating). Said a*-b* values are also assigned in an array (column 12, lines 39-44 of Keating) about the non-central L*-value (column 12, lines 34-35 of Keating) which is the same as assigning integers for said a*-b* values in order to show increment/decrement intervals of the corresponding colorimetric values, since the subscripts corresponding to the a*-b* array values are inherently integers based upon the ordering of said a*-b* values.

Bestmann in view of Yeomans is combinable with Keating because they are from the same field of endeavor, namely color correction systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to output color patches for the purpose of color correction and interpolate values for which correction has not been specifically performed, for a set of L*a*b* colorimetric values with each represented L*-, a*-, and b*-value denoted by integers showing increment/decrement intervals, as taught by Keating. It would be natural and obvious to place the central L*a*b* value as the center patch since the other L*a*b* values are varied around said central value. The motivation for doing so would have been to store representative data points in computer memory for later recall (column 9, lines 18-24 and lines 30-35 of Keating). Therefore, it would have been obvious to combine Keating with Bestmann in view of Yeomans to obtain the invention as specified in claims 31, 35, 39 and 43.

6. **Claims 18-19, 21-22, 24-28 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bestmann (US Patent 5,481,380) in view of Tse (US Patent 5,477,345).**

**Regarding claims 18 and 21:** Bestmann discloses an apparatus (figures 1-5 of Bestmann – *each figure shows a particular aspect or characterization of the apparatus*) for correcting the color of a print medium (figure 2 and column 4, lines 31-41 of Bestmann), comprising: color converting means (figure 2 (14→13) of Bestmann) given to a standard print medium (column 3, lines 11-14 of Bestmann), for converting device-dependent image data (figure 2(14) of Bestmann) to first colorimetric data (figure 2 (13) and column 4, lines 15-20 of Bestmann); color correcting means (figure 2(13→15) of Bestmann) for converting said first colorimetric data to second colorimetric data (figure 2(15) and column 4, lines 14-30 of Bestmann) to correct the difference between the color of a desired print medium (printing proofer) and the color of said standard print medium (scanned document) (column 4, lines 30-41 of Bestmann); and an image output device (figure 1(6) and figure 2(17) of Bestmann) for producing a proof (figure 5(33) of Bestmann) on which the difference between the color of said desired print medium and the color of said standard print medium has been corrected (column 8, lines 56-67 and column 9, line 42 to column 10, line 2 of Bestmann – *correction values are calculated and used to calibrate the values scanned from the test original*), on a proof medium based on said second colorimetric data (column 3, lines 17-19 and lines 31-44 of Bestmann), wherein each of the first (CIEXYZ) and second (CIELAB,CIELUV) colorimetric data each comprise device-independent color spaces (column 4, lines 20-25 of Bestmann) and the correcting means operates on said device independent color spaces (column 4, lines 14-30 of Bestmann).

Bestmann does not disclose expressly that the color correcting means corrects the data based on the ratios $X\alpha/X0$, $Y\alpha/Y0$, and $Z\alpha/Z0$, where $X\alpha$, $Y\alpha$, and $Z\alpha$ are second colorimetric data values and X0, Y0 and Z0 are first colorimetric data values for which the difference between the color of a desired print medium and the color of said standard print medium has been corrected.

Tse discloses correcting color image data based on the ratios $X\alpha/X0$, $Y\alpha/Y0$, and $Z\alpha/Z0$, where $X\alpha$, $Y\alpha$, and $Z\alpha$ are second colorimetric data values and X0, Y0 and Z0 are first colorimetric data values for which the difference between the color of a desired print medium and the color of said standard print medium has been corrected (figure 1(block with "F(X/Xn), F(Y,Yn) & F(Z/Zn) LUT") and column 11, lines 33-60 of Tse – *colorimetric conversion based on ratios of input/output colorimetric values in XYZ space*).

Bestmann and Tse are combinable because they are from the same field of endeavor, namely color conversion processing for digital image data. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use ratios between the first and second colorimetric data

values for color correction, as taught by Tse. The suggestion for doing so would have been the mathematical relationships between CIEXYZ color space and CIELab color space, as discussed by Tse, and the fact that CIEXYZ is used as the first colorimetric data and CIELab can be used as second colorimetric data in the apparatus taught by Bestmann. Therefore, it would have been obvious to combine Yeomans with Bestmann to obtain the invention as specified in claims 18 and 21.

Further regarding claim 18: The method of claim 18 is performed by the apparatus of claim 21.

**Regarding claim 24:** Bestmann discloses a proofer (figures 1-5 of Bestmann – *each figure shows a particular aspect or characterization of the proofer*) for generating a color proof on a proof print medium having color different from the color of a desired print medium (figure 5(33) and column 8, lines 56-67 of Bestmann), comprising: a color adjusting device (figure 2 of Bestmann) for adjusting the difference between the color of said desired print medium and the color of a standard print medium (column 3, lines 53-57 and column 4, lines 5-12 of Bestmann), wherein the color adjusting device adjusts color proof data based on the colorimetric data values for producing a proper color on said desired print medium ($X\alpha$, $Y\alpha$, and $Z\alpha$) and the colorimetric data values for producing the proper color on said standard print medium (X0, Y0 and Z0) (column 4, lines 14-41 of Bestmann).

Bestmann does not disclose expressly that said adjusting is based on the ratios $X\alpha/X0$, $Y\alpha/Y0$, and $Z\alpha/Z0$.

Tse discloses correcting color image data based on the ratios $X\alpha/X0$, $Y\alpha/Y0$, and $Z\alpha/Z0$, where $X\alpha$, $Y\alpha$, and $Z\alpha$ are second colorimetric data values and X0, Y0 and Z0 are first colorimetric data values for which the difference between the color of a desired print medium and the color of said standard print medium has been corrected (figure 1(block with "F(X/Xn), F(Y,Yn) & F(Z/Zn) LUT") and column 11, lines 33-60 of Tse – *colorimetric conversion based on ratios of input/output colorimetric values in XYZ space*).

Bestmann and Tse are combinable because they are from the same field of endeavor, namely color conversion processing for digital image data. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use ratios between the first and second colorimetric data values for color correction, as taught by Tse. The suggestion for doing so would have been the mathematical relationships between CIEXYZ color space and CIELab color space, as discussed by Tse, and the fact that CIEXYZ is used as the first colorimetric data and CIELab can be used as second colorimetric data in the apparatus taught by Bestmann. Therefore, it would have been obvious to combine Yeomans with Bestmann to obtain the invention as specified in claim 24.

**Regarding claims 19, 22 and 25:** Bestmann discloses that said color correcting means is generated by outputting color patches (figure 5(33) and column 9, lines 1-12 of Bestmann – *each printed color field corresponds to the recited color patches*), whose colorimetric values are varied in a colorimetric color space about the color of the standard print medium (column 8, lines 56-67 of Bestmann), with said image output device, and comparing the color of the desired print medium with the colors of the color patches on the proof medium (column 9, lines 4-15 of Bestmann).

**Regarding claim 26:** Bestmann discloses that said color adjusting device adjusts color by using a colorimetric data which is determined by colorimetrically measuring the color of said desired print medium with a colorimeter (column 9, lines 19-28 of Bestmann).

**Regarding claim 27:** Bestmann discloses a printing profile (figure 5(32) of Bestmann), wherein said color adjusting device adjusts color by a color converting means behind said printing profile (column 5, lines 52-64 of Bestmann – *color conversion stored in table memory provides printing profile based on values of scanned image data*).

**Regarding claim 28:** Bestmann discloses a synthetic color converting means (figure 5(32) of Bestmann) at least combining a printing profile, a color converter for adjusting color, and a printer profile, for correcting color (column 5, lines 52-64 of Bestmann – *color conversion stored in table memory provides printing profile, color converter, and printer profile based on values of scanned image data which is converted to output printer color space*).

**Regarding claim 49:** Bestmann discloses that the color of a standard print medium is represented as a first device-independent color space (figure 2(13) of Bestmann) and the color of the desired print medium represents a conversion of data of said first device-independent color space (figure 2(15) and column 4, lines 14-30 of Bestmann).

**7. Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bestmann (US Patent 5,481,380) in view of Tse (US Patent 5,477,345) and Keating (US Patent 5,619,434).**

**Regarding claims 20 and 23:** Bestmann in view of Tse does not disclose expressly that said color patches outputted on said proof medium comprise color patches whose colorimetric values L*a*b* are varied in a CIELAB color space about the color of said standard print medium.

Keating discloses that said color patches have colorimetric values L*a*b* which are varied in a CIELAB color space (column 9, lines 13-18 of Keating).

Bestmann in view of Tse is combinable with Keating because they are from the same field of endeavor, namely color correction systems. At the time of the invention, it would have been obvious to a

person of ordinary skill in the art to vary the colors of said color patches about the color of said standard print medium, as discussed in the arguments regarding claims 3, 4, 9 and 10, using colorimetric values L*a*b* which are varied in a CIELab color space, as taught by Keating. The motivation for doing so would have been that CIELab values are a useful color space with which to measure color appearance (column 1, lines 16-25 of Keating). Therefore, it would have been obvious to combine Keating with Bestmann in view of Tse to obtain the invention as specified in claims 20 and 23.

**8. Claims 5-6, 11-12, 29-31, 33-35, 37-39 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bestmann (US Patent 5,481,380) in view of Yeomans (US Patent 4,866,514), Keating (US Patent 5,619,434), and Dundas (US Patent 5,604,567).**

**Regarding claims 32, 36, 40 and 44:** Bestmann in view of Yeomans and Keating does not disclose expressly that a color difference ΔE in adjacent color patches on each axis of L*a*b* has a value between 1.5 and 2.0, inclusive.

Dundas discloses that color adjustment is performed for both fine and coarse difference ranges between adjacent color patches arranged about the central color patch (figure 9 and column 9, lines 15-20 of Dundas), depending on the range of color adjustment needed (column 9, lines 16-19 of Dundas). This is a more general and adaptable range definition than a color difference ΔE between 1.5 and 2.0, inclusive. A color difference ΔE between 1.5 and 2.0, inclusive, would be used for specific cases of color correction since ΔE between 1.5 and 2.0, inclusive, is a small perturbation in color values.

Bestmann in view of Yeomans and Keating is combinable with Dundas because they are from the same field of endeavor, namely color correction. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to vary the color patches in a L*a*b* color space, as taught by Bestmann in view of Yeomans and Keating; using both fine and coarse color difference ranges, such as ΔE between 1.5 and 2.0 (inclusive) for adjacent patches, as taught by Dundas. The motivation for doing so would have been to incrementally observe color differences so that the color can be adjusted to a desired color (figure 9 and column 8, lines 37-47 of Dundas). Therefore, it would have been obvious to combine Dundas with Bestmann in view of Yeomans and Keating to obtain the invention as specified in claims 32, 36, 40 and 44.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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